Electronic Version
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Claims

[c1] A vehicle mirror assembly comprising:

a base comprising:

a first base portion defined by a first base longitudinal line and a first base periphery, said first base portion having a first base radius of curvature; and

a second base portion defined by said first base longitudinal line and a second base periphery, said second base portion having a second base radius of curvature; and

a dome lens conforming to said base, said dome lens having a varying dome lens radius of curvature, said dome lens comprising:

a center surface portion having a center surface radius of curvature, said center surface radius corresponding to a position on said dome lens aligned with a first base longitudinal midpoint to said dome lens, said center surface radius perpendicular to said first base longitudinal line; and

a peripheral surface portion having a peripheral surface radius of curvature, said peripheral surface radius of curvature corresponding to said first base periphery, said peripheral surface radius of curvature greater than said center surface radius of curvature.

[c2] A vehicle mirror assembly as described in claim 1, wherein said second base portion is perpendicular to said first base portion.

[c3] A vehicle mirror assembly as described in claim 1, wherein said center surface portion forms a first proportion image view and said peripheral surface portion forms a second proportion image view, said first proportion image view generating smaller image proportions than said second proportion image view.

[c4] A vehicle mirror assembly as described in claim 1, wherein said center surface portion is positioned between said first base periphery and said second base periphery.

[c5] A vehicle mirror assembly as described in claim 1, wherein a dome depth is less than one third of a dome width.

[c6] A vehicle mirror assembly as described in claim 1, wherein said first base radius of curvature is constant.

[c7] A vehicle mirror assembly as described in claim 1, wherein said dome lens comprises a major axis tip portion of an ellipsoid.

[c8] A vehicle mirror assembly as described in claim 7,

wherein:
said first base portion divides said ellipsoid perpendicular to a major axis of said ellipsoid; and
said second base portion divides said ellipsoid parallel to said major axis of said ellipsoid.

[c9] A vehicle mirror assembly as described in claim 7, wherein said major axis tip portion comprises a dome depth less than one tenth of a major axis length of said ellipsoid.

[c10] A vehicle mirror assembly as described in claim 7, wherein said ellipsoid includes a minor axis length less than half of a major axis length.

[c11] A mirror assembly comprising:
a base comprising:
a first base portion defined by a first base longitudinal line and a first base periphery, said first base portion having a first base radius of curvature; and
a second base portion defined by said first base longitudinal line and a second base periphery, said second base portion having a second base radius of curvature; and
a dome lens conforming to said base, said dome lens comprising a major axis tip portion of an ellipsoid, said major axis tip portion formed by dividing said ellipsoid across a major axis, said dome lens generating a first

proportion image view and a second proportion image, said first proportion image view generating smaller image proportions than said second proportion image view, said first proportion image view positioned at an ellipsoid tip point.

[c12] A mirror assembly as described in claim 11, wherein said ellipsoid is divided perpendicular to said major axis and then further divided parallel to said major axis to form said major axis tip portion.

[c13] A mirror assembly as described in claim 11, wherein said first base portion is perpendicular to said second base portion.

[c14] A mirror assembly as described in claim 11, wherein said first base portion is co-planar with said second base portion.

[c15] A mirror assembly as described in claim 11, wherein said first base portion is non-planar with said second base portion.

[c16] A mirror assembly as described in claim 13, wherein a said ellipsoid tip point is positioned in between said first base periphery and said second base periphery.

[c17] A mirror assembly as described in claim 13, wherein said

ellipsoid tip point is positioned adjacent said second base periphery.

[c18] A mirror assembly as described in claim 11, wherein said ellipsoid includes a minor axis length less than half of a major axis length.

[c19] A method of improving a vehicle driver's field of view comprising:
mounting a mirror assembly on the front of a vehicle, said mirror assembly comprising:
a base comprising:
a first base portion defined by a first base longitudinal line and a first base periphery, said first base portion having a first base radius of curvature; and
a second base portion defined by said first base longitudinal line and a second base periphery, said second base portion having a second base radius of curvature; and
a dome lens conforming to said base, said dome lens comprising a major axis tip portion of an ellipsoid, said major axis tip portion formed by dividing said ellipsoid across a major axis, said dome lens generating a first proportion image view and a second proportion image, said first proportion image view generating smaller image proportions than said second proportion image view, said first proportion image view positioned at an ellipsoid tip point; and

positioning said mirror assembly such that a vehicle reflection is reflected to the driver within said first proportion image view; and

positioning said mirror assembly such that said second proportion image view reflects to the driver a front-of-vehicle view and a side-of-vehicle view.

[c20] A method as described in claim 19, further comprising: orientating said mirror assembly such that said second base portion is parallel with a vehicle hood plane, said ellipsoid tip point positioned adjacent said second base periphery.

[c21] A method as described in claim 20, wherein said first base portion is perpendicular to said second base portion.

[c22] A method as described in claim 19, further comprising: orientating said mirror assembly such that said ellipsoid tip point is positioned closer to the vehicle than said first base periphery.